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L6: Entry 87 of 149

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Oct 6, 2000

DERWENT-ACC-NO: 2001-141141  
DERWENT-WEEK: 200115  
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TITLE: Multilayer ceramic substrate manufacture for high frequency module, involves providing contraction inhibition layers to laminate main surfaces, baking and spraying aqueous solution of grinding particles

## PATENT-ASSIGNEE:

ASSIGNEE  
MURATA MFG CO LTD

CODE  
MURA

PRIORITY-DATA: 1999JP-0077659 (March 23, 1999)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 2000277914 A	October 6, 2000	N/A	007	H05K003/46

## APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP2000277914A	March 23, 1999	1999JP-0077659	N/A

INT-CL (IPC): B32B 18/00; H05K 3/46

ABSTRACTED-PUB-NO: JP2000277914A

## BASIC-ABSTRACT:

NOVELTY - The method involves forming a composite laminate (1) comprising ceramic green sheet and conductor layer. Contraction inhibition layers (2a,2b) are provided to both main surfaces of the laminate and then baked at sintering temperature of laminate. Aqueous solution (5) containing grinding particles of alumina, is sprayed to remove the contraction inhibition layers.

USE - For manufacturing multilayer ceramic substrate used in high frequency module, multilayer circuit board used for electronic devices like computer, mobile communication terminal.

ADVANTAGE - Multi-layered ceramic substrate with excellent surface property is offered. The contraction inhibition layers are peeled and removed smoothly.

DESCRIPTION OF DRAWING(S) - The figure shows schematic sectional view explaining manufacturing method of multilayered ceramic substrate.

Composite laminate 1

Contraction inhibition layers 2a,2b

Aqueous solution 5

CHOSEN-DRAWING: Dwg.1/1

TITLE-TERMS: MULTILAYER CERAMIC SUBSTRATE MANUFACTURE HIGH FREQUENCY MODULE CONTRACT INHIBIT LAYER LAMINATE MAIN SURFACE BAKE SPRAY AQUEOUS SOLUTION GRIND PARTICLE

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File: DWPI

Nov 11, 2000

DERWENT-ACC-NO: 2000-023417  
DERWENT-WEEK: 200121  
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TITLE: Method of producing ceramic multilayer substrate

INVENTOR: BABA, Y; KONISHI, M ; OCHI, H ; SEGAWA, S ; SHIRAISHI, O

PATENT-ASSIGNEE:

ASSIGNEE

CODE

MATSUSHITA ELECTRIC IND CO LTD

MATU

PRIORITY-DATA: 1998JP-0114671 (April 24, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
TW 411750 A	November 11, 2000	N/A	000	H05K003/46
WO 9956510 A1	November 4, 1999	J	016	H05K003/46
EP 993242 A1	April 12, 2000	E	000	H05K003/46
CN 1263692 A	August 16, 2000	N/A	000	H05K003/46
JP 11553939 X	March 13, 2001	N/A	000	H05K003/46

DESIGNATED-STATES: CN ID JP KR SG US AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT  
SE AT DE FR GB

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
TW 411750A	April 23, 1999	1999TW-0106516	N/A
WO 9956510A1	April 19, 1999	1999WO-JP02079	N/A
EP 993242A1	April 19, 1999	1999EP-0913716	N/A
EP 993242A1	April 19, 1999	1999WO-JP02079	N/A
EP 993242A1		WO 9956510	Based on
CN 1263692A	April 19, 1999	1999CN-0800520	N/A
JP 11553939X	April 19, 1999	1999JP-0553939	N/A
JP 11553939X	April 19, 1999	1999WO-JP02079	N/A
JP 11553939X		WO 9956510	Based on

INT-CL (IPC): H05K 3/46

ABSTRACTED-PUB-NO: WO 9956510A  
BASIC-ABSTRACT:

NOVELTY - A method of producing a ceramic multilayer substrate, comprising providing both sides of a stack of unfired green sheets with shrinkage-suppressing sheets, firing the stack to produce a multilayer body, compressed air and water, or a ceramic powder, or a mixture of water and a ceramic powder is sprayed against the multilayer body to remove the shrinkage-suppressing sheets from both sides without damaging the multilayer substrate.